

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

Listing of Claims:

Claims 1-6 (Canceled).

Claim 7 (Currently Amended): A multi-carrier CDMA radio transmitting method of replicating each information symbol, disposing the replicated information symbols along a frequency axis, multiplying the replicated information symbols by a spreading code along the frequency axis, thus spreading the information symbols into components of a plurality of sub-carriers having different frequencies, and thus rendering multiplex transmission of the information, comprising the step of

enabling a transmission rate of the information to be changed by variably controlling a duration of a multiplex transmission intervals- interval between a first transmission of a symbol and a subsequent transmission of a symbol, along a time axis for each user to which the information is to be transmitted.

Claim 8 (Previously Presented): A multi-carrier CDMA radio transmitting method of replicating each information symbol, disposing the replicated information symbols along a frequency axis, multiplying the replicated information symbols by a spreading code along the frequency axis, thus spreading the information symbols into components of a plurality of sub-carriers having different frequencies, and thus rendering multiplex transmission of the information, comprising the step of

enabling a transmission rate of the information to be changed by controlling the number of modulation levels used for each user by increasing or decreasing the number of

levels used within a digital modulation scheme when the information symbols to be spread are obtained through data modulation.

Claim 9 (Canceled).

Claim 10 (Previously Presented): The method as claimed in claim 7, wherein respective sub-carriers assigned for the spreading of the information symbols are orthogonal along the frequency axis.

Claim 11 (Previously Presented): The method as claimed in claim 8, wherein respective sub-carriers assigned for the spreading of the information symbols are orthogonal along the frequency axis.

Claim 12 (Canceled).

Claim 13 (Previously Presented): The method as claimed in claim 7, wherein respective sub-carriers assigned for the spreading of the information symbols have frequency characteristics such that the frequency spectra do not overlap between each adjacent sub-carrier.

Claim 14 (Previously Presented): The method as claimed in claim 8, wherein respective sub-carriers assigned for the spreading of the information symbols have frequency characteristics such that the frequency spectra do not overlap between each adjacent sub-carrier.

Claim 15 (Canceled).

Claim 16 (Previously Presented): The method as claimed in claim 7, wherein respective sub-carriers assigned for the spreading of each information symbol are disposed discretely along the frequency axis.

Claim 17 (Previously Presented): The method as claimed in claim 8, wherein respective sub-carriers assigned for the spreading of each information symbol are disposed discretely along the frequency axis.

Claim 18 (Canceled).

Claim 19 (Previously Presented): The method as claimed in claim 7, wherein respective sub-carriers assigned for the spreading of each information symbol are disposed successively along the frequency axis.

Claim 20 (Previously Presented): The method as claimed in claim 8, wherein respective sub-carriers assigned for spreading each information symbol are disposed continuously along the frequency axis.

Claims 21-27 (Canceled).

Claim 28 (Currently Amended): A multi-carrier CDMA radio transmitting apparatus replicating each information symbols, disposing the replicated information symbols along a frequency axis, multiplying the replicated information symbols by a spreading code along the

frequency axis, thus spreading the information symbols into components of a plurality of sub-carriers having different frequencies, and thus rendering multiplex transmission of the information, comprising

an intermittent transmission control part variably controlling a duration of multiplex transmission-intervals interval between a first transmission of a symbol and a subsequent transmission of a symbol, along a time axis for each user to which the information is to be transmitted.

Claim 29 (Currently Amended): A multi-carrier CDMA radio transmitting apparatus replicating each information symbols, disposing the replicated along a frequency axis, multiplying the replicated information symbols by a spreading code along the frequency axis, thus spreading the information symbols into components of a plurality of sub-carriers having different frequencies, and thus rendering multiplex transmission of the information, comprising

a modulation level number control part controlling the number of modulation levels used for each user by increasing or decreasing the number of levels used within a digital modulation scheme when the information symbols to be spread are obtained through data modulation.

Claim 30 (Canceled).

Claim 31 (Previously Presented): The apparatus as claimed in claim 28, wherein respective sub-carriers assigned for the spreading of the information symbols are orthogonal along the frequency axis.

Claim 32 (Previously Presented): The apparatus as claimed in claim 29, wherein respective sub-carriers assigned for the spreading of the information symbols are orthogonal along the frequency axis.

Claim 33 (Canceled).

Claim 34 (Previously Presented): The apparatus as claimed in claim 28, wherein respective sub-carriers assigned for the spreading of the information symbols have frequency characteristics such that the frequency spectra do not overlap between each adjacent sub-carrier.

Claim 35 (Previously Presented): The apparatus as claimed in claim 29, wherein respective sub-carriers assigned for the spreading of the information symbols have frequency characteristics such that the frequency spectra do not overlap between each adjacent sub-carrier.

Claim 36 (Canceled).

Claim 37 (Previously Presented): The apparatus as claimed in claim 28, wherein respective sub-carriers assigned for the spreading of each information symbol are disposed discretely along the frequency axis.

Claim 38 (Previously Presented): The apparatus as claimed in claim 29, wherein respective sub-carriers assigned for the spreading of each information symbol are disposed discretely along the frequency axis.

Claim 39 (Canceled).

Claim 40 (Previously Presented): The apparatus as claimed in claim 28, wherein respective sub-carriers assigned for the spreading of each information symbol are disposed successively along the frequency axis.

Claim 41 (Previously Presented): The apparatus as claimed in claim 29, wherein respective sub-carriers assigned for the spreading of each information symbol are disposed successively along the frequency axis.

Claims 42-49 (Canceled).

Claim 50 (Currently Amended): The method ~~apparatus~~ as claimed in claim 7, wherein the intervals are adjusted prior to spreading.

Claim 51 (New): The method as claimed in claim 8, wherein a modulation level of at least one of a quadrature amplitude modulation or a phase-shift keying is increased or decreased to a number being a power of 2.

Claim 52 (New): The apparatus as claimed in claim 29, wherein a modulation level of at least one of a quadrature amplitude modulation or a phase-shift keying is increased or decreased to a number being a power of 2.